



## **Environmental Management Programs Final Report** **(Fiscal Year 2005)**

**REFUSE**  
**DISPOSAL**  
**DIVISION**

This report summarizes the results of our Environmental Management Programs (EMPs) in meeting the Refuse Disposal Division's (RDD) objectives and targets for the fiscal year 2005 (July 2004-June 2005).

The following list of objectives and targets were developed and implemented into our environmental management program for FY 05:

**Ensure Fecal Coliform Impact Compliance Within Mulch/Compost Operations.**

Target – Zero fecal coliform violations from Local Enforcement Agency as a result of “Greenery” operations.

**Maintain Storm-water Runoff Impact Compliance to N.P.D.E.S.,** Target – Storm-water Runoff – zero violations from Regional Water Quality Control Board: Maintain and improve, where feasible, N.P.D.E.S. Best Management Practices (BMPs) program.

**Stationary Equipment Exhaust Emissions Reductions.** Target: Purchase new Trommel screen in FY05 to allow for dual product plus “overs” screening capability, include Tier II engine and electric motor technology review for increased fuel economy and emissions reductions.

**Ensure Gypsum (Dry Wall) Dust Impact Compliance within Compost Processing Operations.** Target - Zero violations from Local Enforcement Agency or Air Pollution Control District regarding gypsum (dry wall) processing in the Greenery.

### **Results**

The results of the objectives and targets set this year proved to be timely given the near record rainfall pattern experienced in San Diego during 2005 (third highest annual rainfall total in San Diego's recorded history). Once again the creativity and ingenuity of the staff helped mitigate potential environmental impacts during periods of adverse weather and resulted in process improvements and programs that kept us operating within or ahead of our environmental regulations. The remainder of this report describes the results of our efforts for meeting our Environmental Management System's (EMS) objectives and targets.

#### **Exhaust Emissions Reductions - Stationary Equipment**

The selection and purchase of a suitable trommel screen proved to be extremely challenging as new California Air Resources Board (CARB) regulations for particulate matter (PM 10) became effective this year. As a result the RDD has been working diligently with our Purchasing Department and the trommel screen manufacturer to ensure that the system will meet the new regulations and therefore be eligible for an operating permit. These efforts proved daunting as no engine manufacturer produces a

product that can meet these new PM 10 regulations at the Tier II or future Tier III level. In addition PM filter manufactures have not had the time to have their filters certified to the new CARB standard. The cumulative result of these issues has effectively placed the City at risk until such time as the entire system can be certified to meet the CARB standard thereby allowing the Air Pollution Control District (APCD) to issue an operating permit for the new stationary system. It is hoped that the purchase of the trommel can be completed no later than the end of August 2005, an Authority to Construct Permit issued by the APCD and the subsequent required testing prove the system compliant and eligible for the Permit to Operate.

### **Positive Impact (Continuous Improvement)**

#### Expand N.P.D.E.S. Best Management Practices (BMPs) program:

The entire regions storm-water system was overtaxed by the near record rainfall from October through April of 2005. However, no Notices of Violations or fines were issued to the landfill this season. This was due primarily to the regional impact on the overall system as well as the dedicated efforts of our landfill staff to mitigate those impacts from the landfill.

Storm-water impact preventive measures implemented this year included the pump down of nearly 2 million gallons of water from the retention basin, application of 30,700 cubic yards of mulch, 5,500 gallons of tackifier applied to the slopes and installation of 1,300 linear feet of silt fencing.

Although this program will remain in effect for the life of the landfill future endeavors in this area will continue under a monitoring and measurement program in FY06 and beyond.

#### Ensure Fecal Coliform Impact Compliance Within Mulch/Compost Operations

A "Fecal Contamination Prevention" Standard Operating Procedure (SOP) was approved and implemented on October 6, 2004. This SOP has subsequently been incorporated into the Greens section of the Landfill Operations Manual.

Customer routing was also adjusted to prevent vehicles with raw greens from entering the completed compost/mulch storage area in an effort to mitigate the potential for fecal contamination of the compost/mulch products due to pet waste in the raw greens loads. In addition, the testing of our compost and mulch piles has been shifted from the recycling specialists responsible for marketing the compost/mulch products to our Biological Services section within the RDD. This was done to allow for a more comprehensive investigation of not only the compost/mulch piles but also to determine the extent and impact of fecal coliform on the Greens operation and the landfill in general.

The Biological Services staff have identified storm-water sampling locations for the Greens area and incorporated these locations into the storm-water sampling plan. It was determined that the excessive rainfall during the winter months contributed to this the fecal coliform issue by temporarily cooling the windrows to an ideal temperature range for the propagation of the bacteria, normally destroyed in the compost process. A consulting firm will be retained in FY06 to study the potential fecal coliform sources and suggest mitigation measures beyond the Best Management Practices currently in place.

### **Resource Conservation (Continuous Improvement)**

#### Ensure Gypsum (Dry Wall) Dust Impact Compliance within Compost Processing Operations

No violations from Local Enforcement Agency or Air Pollution Control District regarding gypsum (dry wall) processing in the Greenery were issued in FY05. Water sprayers have been mounted on the wood processing tub grinder in October 04. Testing of the system and process modifications were conducted throughout November and December as product, weather and operations allowed. Upon completion of the test phase the gypsum dust standard operating procedure was modified and successfully incorporated into the Greenery's operations. There are still a few issues to resolve regarding the time frame the gypsum can remain in the greenery before it is considered a waste issue by the Local Enforcement Agency. It is hoped that the observed operations during routine inspections will lead to an acceptable agreement that keeps the product in the Greenery and out of the landfill.

#### **Monitoring:**

We continue to monitor the activity and results of former EMPs to ensure that they meet the intent and requirements of our environmental policy. All twelve months of FY-05 saw zero excess idle time during periods when heavy equipment was not in operational use, a reduction of 377 hours compared to FY-04.

#### **Conclusion:**

We will be implementing some creative new opportunities for continuous improvement in FY06 including; a public/private steam bioreactor pilot, supporting the selection and construction of a construction and demolition recycling facility, supporting a public/private tip-deck pilot and continuing to improve upon our storm-water, fecal coliform and water use programs.